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## **GTE Service Corporation**

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April 18, 2000

Mr. Dale Hatfield Chief, Office of Engineering and Technology Federal Communications Commission 445 Twelfth Street, SW Room 7-C155 Washington, DC 20554

RE: GTE Final Service Disruption Report for March 23, 2000 Event

Dear Mr. Hatfield:

In accordance with the outage reporting thresholds established in CC Docket 91-273, we are enclosing GTE's Final Service Disruption Report for the above-referenced event. GTE previously filed an Initial Service Disruption Report with the Commission on March 23, 2000.

If you have any question regarding this matter, please call me at (202) 463-5293.

Sincerely,

W. Scott Randolph

Director - Regulatory Matters

Attachment

## GTE NETWORK SERVICES SERVICE DISRUPTION REPORT

	INIT	TIAL REPORT	X_FINAL REPORT	
(1)	50,000 and Over Custom	ners Affected		
<u>X</u> (2)	30,000 - 50,000 Custom	ers Affected		
(3)	"Special" Offices/Facilitie	)\$		
(4)	1,000 and Over Custome	ers Affected - Fire f	Related	
DATE:	03/23/00		TIME: 0648 CST	
GEOGRAPHIC AREA AFFECTED: LATA 730, Monrovia, California central office. The site is an end office hosting one remote unit.				
ESTIM	ATED CUSTOMERS AF	FECTED: 43,920 G	TE Customers	
	S) OF SERVICE AFFECT Office.	FED: All call types	for customers served from the fi	fonrovia
DURA	TION OF THE INCIDENT	: Final: 1 hr 42 min		
ESTIM	ATED NUMBER OF BLO	CKED CALLS: FI	nal: 11,013	
CALISI	E OF THE INCIDENT: W	hilo poetarmina a ev	ntam larana lummadlataha fattarri	

CAUSE OF THE INCIDENT: While performing a system image immediately following a software upgrade, the system began initializing. The system reported faulty common memory hardware and was unable to restore itself, requiring a complete system reload. During the following maintenance period, suspected faulty common memory hardware was removed from the system.

NAME/TYPE EQUIPMENT AFFECTED: AGCS GTD-5

PART OF NETWORK AFFECTED: All local and toll calls to and from the Monrovia GTD-5 Central Office.

METHOD(S) USED TO RESTORE: A system reload of all processors was performed. The full system reload was required due to the system just converting to a new software load and had not completed a new reload image at the time of the outage.

STEPS TAKEN TO PREVENT RECURRENCE: The defective hardware was isolated and replaced during the maintenance window. The detailed post analysis concentrated on the automatic recovery process and associated aspects of system performance.

## Monrovia, CA Service Disruption Report Page 2

BEST PRACTICE APPLICATION: The application best practice for this outage is contained in Section C-5.4.2 of the Signaling Network Systems Committee Technical Paper and part of the Network Reliability: A Report to the Nation-Compendium of Technical Papers, dated June 1993. This section describes the practices for Switching Software design flaws.

Two observations from the noted section were deemed applicable to this outage:

- -"...the system failed to contain the original problem or reacted in too severe a manner to fallures in routine procedures. In other words, the system's fault tolerance was deficient."
- -- "Many of these (outage) descriptions described events where the problem was specific to a specific are or sub-system of the switch, yet the fix required a total switch outage, or the switch's response to manual or automatic actions was more severe than expected.

CONTACT NAME: R. M. SKALA TELEPHONE: 972/615-8233

SUBMITTED DATE: 04/18/00 TIME: 0900 CDT

NO.185 P002/002

## GTE NETWORK SERVICES SERVICE DISRUPTION REPORT

00-44

X INITIAL REPORT \_\_FINAL REPORT

\_\_\_(1) 50,000 and Over Customers Affected

X (2) 30.000 - 50,000 Customers Affected

\_\_\_(3) "Special" Offices/Facilities

\_\_\_(4) 1,000 and Over Customers Affected - Fire Related

DATE: 03/23/00

TIME: 0648 CST

GEOGRAPHIC AREA AFFECTED: LATA 730, Monrovia, California central office. The site is an end office hosting one remote unit.

ESTIMATED CUSTOMERS AFFECTED: 43,820 GTE Customers

TYPE(S) OF SERVICE AFFECTED: All call types for customers served from the Monrovia central office.

DURATION OF THE INCIDENT: 1 hr 42 min

ESTIMATED NUMBER OF BLOCKED CALLS: 11,013

-CAUSE OF THE INCIDENT: An outage of the system's administrative processor resulted in a full system outage. The root cause is under analysis.

NAME/TYPE EQUIPMENT AFFECTED: AGCS GTO-6

PART OF NETWORK AFFECTED: All local and toll calls

METHOD(S) USED TO RESTORE: A system reload of all processors was performed.

STEPS TAKEN TO PREVENT RECURRENCE:

CONTACT NAME: R. M. SKALA

TELEPHONE: 972/616-8233

SUBMITTED DATE: 03/23/00

TIME: 1000 CST